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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/609,961	07/01/2000	Stephen S. Miller		4302

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EXAMINER

HARTMAN JR, RONALD D

ART UNIT	PAPER NUMBER
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2121

DATE MAILED: 12/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/609,961

Applicant(s)

MILLER, STEPHEN S.

Examiner

Ronald D. Hartman Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 27-38 is/are allowed.
- 6) ☒ Claim(s) 1-16 and 19-26 is/are rejected.
- 7) ☒ Claim(s) 17 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 5-7, 13-16 and 24-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Harmon, U.S. Patent No. 6,141,643.

As per claims 1 and 24, Harmon teaches an apparatus comprising:

- plurality of finger shaped sleeves that are coupled together and are each worn on a different finger of a hand (i.e. a glove, Figure 1 and C2 L18), wherein at least one of the sleeves has at least one control element (e.g. Figure 1 elements 101, 102 and 106, "finger pads") for operating an electronic device using finger movements (e.g. Interpreted to correspond to utilizing Harmon's disclosed data input glove, whereby contact between the "finger pads" allows for a signal to be produced, the signal being utilized by a computer for producing synthesized speech or to display words so that a person may easily communicate with others using the data input glove, Abstract).

As per claim 2, Harmon teaches the utilization of a microphone and voice recognition software for use in displaying words on a computer screen (e.g. claim 7 and C6 L61-65).

As per claim 3, Harmon teaches the use of touch sensitive touchpad's (e.g. "finger pads", Figure 1 elements 101, 102 and 106).

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As per claim 5, Harmon teaches that a display device, of a computer, may be located remote to the data glove (e.g. C5 L64-67 and C4 L34-55).

As per claim 6, Harmon teaches connecting the data glove to a computer via a cable (e.g. C5 L24-27).

As per claim 7, Harmon teaches the electronic device being a computer (e.g. C5 L24-27).

As per claims 13-14, Harmon teaches the data glove having both a receiver and transmitter (e.g. transceiver; C5 L64-67).

As per claims 15-16 and 25-26, Harmon teaches the glove communicating via infrared and radio frequencies (e.g. C4 L34-41 and C5 L64-67).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4, 8 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harmon, as applied to claim 1 above, and further in view of Butler, U.S. Patent No. 6,154,199.

As per claims 4, 8 and 19-21, Harmon does not specifically teach the utilization of buttons, cursor control features or a scroll touchpad, in conjunction with his disclosed data input glove.

Butler teaches a hand positioned mouse which is formed by way of a data input glove, similar to that disclosed by Harmon. Butler teaches the use of

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buttons (e.g. Figure 2 element 20) as well as cursor control using a trackball (e.g. Figure 2 element 16).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the features of Butler into the system disclosed by Harmon since both invention are related to analogous art in that they both are directed to data input gloves, and therefore the use of the trackball would be obvious over Harmon since it would provide a simple way of manipulating a cursor on the display screen so that if a user misspelled a word, he or she could easily change it by moving a cursor to the position, in addition, the incorporation of button is an obvious variation of Harmon's touch pads, the only discernable difference being that Harmon's design appears to be more "modern" in that it eliminates the need for any moving parts, nonetheless, buttons would have been obvious so as to provide a simple, yet effective way, of changing modes of operations or for performing other functions by simply pressing a button, and this would have been obvious to one of ordinary skill in the art at the time the invention was made.

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harmon, as applied to claim 1 above, and further in view of Gray, U.S. Patent No. 5,987,310.

As per claim 12, Harmon does not teach his disclosed data input glove being utilized for a telephone.

Gray teaches a cellular telephone in the form of a data input glove (e.g. Figure 1).

It would have been obvious, at the time the invention was made, to have incorporated the teachings of Gray into the system disclosed by Harmon for the purpose of allowing the data input glove to function as a phone, thereby furthering its ability to communicate with others, and this would have been obvious to one of ordinary skill in the art at the time the invention was made.

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6. Claims 9-11 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harmon, as applied to claim 1 above, and further in view of Natoli, U.S. Patent No. 6,388,657.

As per claims 9-11 and 22, Harmon does not specifically teach the glove apparatus instructing a device to control a TV, household appliance or computer, nor the use of headgear in conjunction with the data input glove.

Natoli teaches a data input glove that may be used for instructing remote applications to control any of the aforementioned features, in addition to the use of headgear (e.g. C8 L40-61).

It would have been obvious to one of ordinary skill in the art to have incorporated the teachings of Natoli into the system disclosed by Harmon for the purpose of allowing for remotely located devices to be controlled using the data input glove, and this would have been obvious to one of ordinary skill in the art at the time the invention was made.

7. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harmon, as applied to claim 1 above, and further in view of Prince, U.S. Patent No. 5,581,484.

As per claim 23, Harmon does not specifically teach the utilization of a stylus and touch-screen by the data input glove.

Prince teaches that as computer become smaller and smaller, keyboards must be abandoned for pen or stylus based input screens (e.g. C2 L1-12).

Therefore, it would have been obvious to one of ordinary skill in the art, to have incorporated such a feature into Harmon disclosed system, for the purpose of allowing a simple, yet effective way, of manually entering information, using the glove and stylus, so that the data glove would utilize yet another method for interpreting input commands to be displayed on the display screen, an obvious advantage if being utilized by a person who cannot speak and would find it easier to communicate by writing, and this would have been obvious to one of ordinary skill in the art at the time the invention was made.

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Allowable Subject Matter

8. Claims 17-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, and claims 27-38 are allowed.

As per claims 17-18 and 27, the prior art of record fails to teach an apparatus for controlling a computer, wherein the apparatus is formed by at least one finger shaped sleeve, wherein at least one sleeve includes a microphone, and at least one control element which allows for selective switching between a text mode of operation and a command mode of operation, in combination with the other claimed features and or limitations as claimed.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald D. Hartman Jr. whose telephone number is (571) 272-3684. The examiner can normally be reached on Mon.-Fri., 11:00 - 8:30 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on (571) 272-3687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Anthony Knight
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Ronald D Hartman Jr.
Patent Examiner
Art Unit 2121

X RDH

August 17, 2005